20. (Amended) A computer program product comprising a computer-readable medium storing a computer program code for executing an image processing method, said product comprising process procedure codes for:

a detection step of detecting a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of image portions, wherein each photographic image portion is separated by the frame image;

a generation step of generating correction information corresponding to each photographic image portion detected by the detection step; and

a correction step of correcting each photographic image portion based on the generated correction information.

REMARKS

This application has been reviewed in light of the Office Action dated October 21, 2002. Claims 1-20 are presented for examination. Claims 18-20 have been amended to define more clearly what Applicant regards as his invention. Claims 1, 9, and 17-20 are in independent form. Favorable reconsideration is requested.

Claims 1-3, 6-11, and 14-20 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,351,558 (*Kuwata*).

Claims 4, 5, 12, and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kuwata* as applied to Claims 3 and 11, in view of U.S. Patent No. 5,491,759 (*Naoi et al.*).

Rejection of Claims 1-17

Applicant respectfully traverses the rejection of Claims 1-17, and submit that these claims are patentable for at least the following reasons.

The aspect of the present invention set forth in Claim 1 is an image processing apparatus. The image processing apparatus includes a detector, a generator, and a corrector. The detector detects an image area of an inputted image, not including a frame image. The generator generates correction information of the detected image area, and the corrector corrects the image area based on the generated correction information. The detector detects the frame image, which has gradation, by detecting pixels that have a same hue and a difference between lightness and saturation having a predetermined value or less.

One important feature of Claim 1 is that the image processing apparatus detects a frame that has gradation by detecting pixels with the same hue and a difference between lightness and saturation having a predetermined value or less. By being able to detect a frame image, or frame, an image area that excludes the frame image can be corrected without encountering the problem described on page 1 of the specification, that is, without the frame image erroneously influencing correction processing of the image area.

The Office Action cites *Kuwata* as teaching the feature of detecting a frame that has gradation by detecting pixels with the same hue and a difference between lightness and saturation having a predetermined value or less. In particular, the Office Action cites Figure 17 of *Kuwata* as showing the luminance histogram of the framed image, depicted in Figure 16. The Office Action asserts that the frame is composed of white and black pixels,

which have gradations of "0" and "255", thereby alleging that the frame has "two distinct gradations".

Applicant fails to understand the Examiner's position that Figure 16 of *Kuwata* shows a frame having "two distinct gradations". Applicant respectfully disagrees with this understanding of the term "gradation". It is Applicant's understanding that the term "gradation", a term of art, indicates a gradual change of color. As understood by Applicant, *Kuwata* considers a black frame, a white frame, and a frame of a specific color, but does not consider a frame with gradation. Therefore, Figure 16 of *Kuwata* does not teach or suggest the frame exhibiting gradation.

Applicant has found nothing in *Kuwata* that would teach or suggest an image processing apparatus that includes "a detector, arranged to detect an image area excluding a frame image contained in an inputted image," wherein the "detector detects the frame image, which has gradation, by detecting pixels that have a same hue and a difference between lightness and saturation having a predetermined value or less," as recited in Claim 1. Applicant submits that *Naoi et al.* fails to remedy the deficiencies of *Kuwata*.

Accordingly, Applicant submits that Claim 1 is not anticipated by *Kuwata*, and respectfully requests withdrawal of the rejection under 35 U.S.C. § 102(e).

Independent Claims 9 and 17 are method and computer program product claims respectively corresponding to apparatus Claim 1, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 1.

Rejected Claims 2-8, and 10-16 depend from one or another of the independent claims discussed above, and, therefore, are submitted to be patentable for at

least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

Rejection of Claims 18-20

As shown above, Applicant has amended independent Claims 18-20 in terms that more clearly define the present invention. Applicant submits that these amended independent claims are patentably distinct from the cited prior art for at least the following reasons.

The aspect of the present invention set forth in Claim 18 is an image processing apparatus. The image processing apparatus includes a detector, a generator, and a corrector. The detector detects a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of photographic image portions, wherein each photographic image portion is separated by the frame image. The generator generates correction information corresponding to each photographic image portion detected by the detector, and the corrector corrects each photographic image portion based on the generated correction information.

One important feature of Claim 18 is that the detector detects a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of photographic image portions, wherein each photographic image portion is separated by the frame image. That is the present invention, as recited in Claim 18, detects each photographic image portion when there exists a plurality of photographic image portions, each separated by the frame image.

Nothing has been found in *Kuwata* that would teach or suggest a detector detecting a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of photographic image portions, wherein each photographic image portion is separated by the frame image. In *Kuwata*, as depicted in Figure 17, when a plurality of photographic portions exist, all of the portions are included in an area between the white and black frame distributions. In other words, *Kuwata* detects a plurality of photographic image portions as one photographic image portion. In contrast, the present invention, as defined in Claim 18, detects a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of photographic image portions, wherein each photographic image portion is separated by the frame image. Applicant further submits that *Naoi et al.* fails to remedy the deficiencies of *Kuwata*.

Accordingly, Applicant submits that Claim 18 is not anticipated by *Kuwata*, and respectfully requests withdrawal of the rejection under 35 U.S.C. § 103(a).

Independent Claims 19 and 20 are method and computer program product claims respectively corresponding to apparatus Claim 18, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 18.

This Amendment After Final Action is believed clearly to place this application in condition for allowance and, therefore, its entry is believed proper under 37 C.F.R. § 1.116. Accordingly, entry of this Amendment, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested. Should the Examiner believe that issues remain outstanding, it is respectfully requested that the

Examiner contact Applicant's undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

Joseph W. Ragusa

Attorney for Applicant

Registration No. 38,586

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200
NY MAIN 321510

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

18. (Amended) An image processing apparatus comprising:

a detector, arranged to detect a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of photographic image portions, wherein each photographic image portion is separated by the frame image;

a generator, arranged to generate correction information corresponding to each photographic image portion detected by said detector; and

a corrector, arranged to correct each photographic image portion based on the generated correction information.

19. (Amended) An image processing method comprising the steps of:

detecting a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of photographic image portions, wherein each photographic image portion is separated by the frame image;

generating correction information corresponding to each photographic image portion detected in said detecting step; and

correcting each photographic image portion based on the generated correction information.

20. (Amended) A computer program product comprising a computer-readable medium storing a computer program code for executing an image processing method, said product comprising process procedure codes for:

a detection step of detecting a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of image portions, wherein each photographic image portion is separated by the frame image;

a generation step of generating correction information corresponding to each photographic image portion detected by the detection step; and

a correction step of correcting each photographic image portion based on the generated correction information.